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The relationship between education of emotional intelligence components and positive thinking with mental health and self-efficacy in female running athletes

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Abstract

The objective pursued to conduct the present research was study of relationship between education of emotional intelligence components and positive thinking in promotion of mental health and self-efficacy in female running athletes of Ardabil' Takhtei athletic stadium. In order to select research sample, screening method was used in a manner that after completion of a General Health Questionnaire and General Self-Efficacy Scale by educated female running athletes Ardebil' Takhtei athletic stadium. Statistics population evolved all female running athletes that 24 persons of them were acquired cutting number. Next, we put them randomly in two test and control groups that each group consists of 12 people. In study athletes of two groups we used from Goldberg General Health Questionnaire (28 – entry form) and General Self-Efficacy Sherer. Then test group was educated in 8 sessions for emotional intelligence and positive thinking; while, control group was not trained for these educations. Finally, after holding training sessions for test group, both groups were under pretest as posttest. The statistical methods used at the present research are descriptive and inferential. The results showed that the education of emotional intelligence and positive thinking components can increase the self-efficacy of athletes.

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Introduction

Nowadays, the importance of exercise is obvious and indisputable for individuals and communities. Since Plato's time Physical activity and exercise have been considered essential in sublimating human spirit, so that Plato believes physical education is the basis of soul training, disburdenment introduction, reducing dependency to materials and mental excellence (Eskandari, 2002). Today, paying attention to sports, success of athletes and variables associated with athletic performance, including mental health and efficacy have shifted most people attention in various scientific areas including sports medicine and sports psychology to itself (Champion, 1990; translated by Agaeynia; 1994). Hence, paying attention to sports psychology and performance-related variables such as stress, mental health

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and personality traits like self-efficacy could have beneficial results. There is a mutual relationship between exercise and mental health, so that not only exercise influence mental health of individuals but also mental health is also associated with athletic performance and success. In general, anxiety, stress, and lack of mental health are among the most important and influential factors affecting the way of holding the races and exercise. (Butler, 1994; translated by Najafi Tavana, 1998).

Among the other factors associated with success and people performance improvement, and especially athletes, one could refer to the self-efficacy. Self-efficacy means having a controlling sense on behavior, environment, thoughts, and feelings (Bandura, 1977). Unexpected occurrence of events such as change in race conditions or injuries causing stress, lack of appropriate levels of self-efficacy in athletes result in performance decline, and physical complications. This would lead their success and mental health to be affected in different individual and group situations (Gill, 2000). Teaching emotional intelligence (EQ) components and positive thinking are among the factors and effective methods in mental health and self-efficacy promotion as well as different groups' success including teachers, students, prisoners, athletes. In the same way, researchers are seeking to determine and predict people's athletic and academic success, resorting to emotional and social intelligence (Goleman 1995; translated by Parsa, 2004). Emotional Intelligence (EQ) has been recognized as one of the most effective factors in individual success. Unlike intelligence quotient (IQ), which is mostly influenced by hereditary factors and remains constant throughout life, emotional intelligence is probably more influenced by environmental conditions (Goleman 1995; translated by Parsa, 2004).

Teaching social and emotional intelligence components could be both in the long and short term a guarantee of success for individual. Elias and et al (1991) conducted a study and found that emotional skills could have long-term effects on sporting success. A research conducted by Floyd (1996) on 20 college students showed that their athletic success mainly depended on two important personality trait namely persistence and optimism, both of which were subsets of emotional intelligence.

Another factor affecting the success and high performance of athletes is positive thinking and paying attention to positive psychology. "Positive psychology" means the scientific study of an ideal human. Seligman (Father of Positive Psychology) said: This psychology is the psychology of the twenty-first century. A branch of science, which has focused on the abilities of people such as living happy, enjoyment, problem solving ability, and optimism instead of considering disabilities and human weaknesses. Seligman (1993) believes that optimism can predict the success of the sport. In a research conducted by Seligman on 500 athletic students in Pennsylvania University, it was concluded that the students' grade in optimism test predicted their success in the tournament better than their grades in SAT (Seligman Attitude Test) test.

The present study was performed with the aim of determining the effectiveness of teaching components of emotional intelligence and positive thinking on promoting mental health and self-efficacy of athletes.

Methods

The method to perform the present study is a "semi-empirical" one in the form of a research project with pretest - posttest control group. In this method, we pre-tested the control and experimental groups. The experimental group was affected by the independent variable (teaching emotional intelligence and positive thinking), and the control group received no intervention. After the end of training sessions, both groups were post-tested. The statistical universe of the present research was all female track and field athletes of Takhti Sports Complex of which 24 qualified students (establishing cut scores on the pretest questionnaire, age range of 18-40, lack of acute and chronic physical and psychological disorders, desire and ability to establish communication with others in the group, committing to attend the training sessions) were purposefully selected. Then, the mentioned 24 students were

randomly assigned to two groups of 12 members. One of the groups as "the experimental group" was taught emotional intelligence and positive thinking components and the other as "control group" was taught nothing.

The Structured Interview

Each one of the subjects was diagnostically interviewed (based on DSM IV criteria) to ensure the proper selection and to examine the required criteria for individuals to enter into the experimental groups.

The General Health Questionnaire (GHQ28)

This questionnaire is the best-known and most popular screening tool in psychiatry (quoting Homan, 1997). It has four subscales: physical symptoms, anxiety and insomnia, social dysfunction and depression. For grading the tests, each answer from right to is scored as zero, one, two and three scores. A total score is obtained from sum of the scores.

General self-efficacy scale of Scherer (G.S.E.S)

Scherer scale for measuring general self-efficacy has 23 Articles, evaluating the expectations of the subjects' self-efficacy at three levels of: tendency to beginning of behavior, been completion behavior and consistent face barriers. In this study, the training of emotional intelligence and positive thinking components was applied on the experimental group as the independent variable. The trainings were presented to female track and field athletes, while each session lasted 1.5 hours.

Tables

Table 1. Descriptive characteristics of scores pre-post test of experimental and control groups

Groups	Tests	Mean(sd)	Mental health	Self-efficacy
Control Group	Pre-Test	Mean	30.17	29.55
		sd	6.52	8.74
	Post-Test	Mean	29.92	32.42
		sd	6.55	2.35
Experimental Group	Pre-Test	Mean	32	31.50
		sd	6.39	3.37
	Post-Test	Mean	22	45.67
		sd	6.82	7.62

As can be seen in Table 1, the mean of each dependent variable, i.e., mental health and self-efficacy is different in the pre-test and post-test of the experimental group, while these means are slightly different in pre-test and post-test of the control group. Figure 1 shows the mean of mental health and self-efficacy scores has increased at the post-test of experimental group compared with its pre-test, while there is a slight difference between the means of post-test dependent variables compared with their pre-tests (It should be noted that lower mental health score, is meant to increase the level of mental health).

Table 2. Results of covariance analysis of impact of emotional intelligence and thinking positive training in post- test phase

Dependent Variable	Resource	Sum of squared	Mean of squared	F	Significant Level	Eta squared
Mental health	Pre-Test	77.86	77.86	5.48	0.0001	0.34
	Group	281.17	140.58	25.71	0.0001	0.55
Self-efficacy	Pre-Test	46.35	46.35	30.02	0.0001	0.52
	Group	70.38	35.19	22.25	0.001	0.27

Considering the results listed in Table 2, it can be concluded that the observed difference between the modified mean score of mental health in the experimental group (training of emotional intelligence components and positive thinking) and control groups is statistically significant ($P < 0.0001$, $F = 25.71$). Referring to Table 1, we can also observe that the mean score of mental health post-test in the experimental group is less than that of the control group. Therefore, one could find out that training emotional intelligence and positive thinking in the experimental group compared with the control group has caused the athletes' mental health to be increased. The impact rate is 0.55, i.e., 0.55 of variance explained by the adjusted mean of mental health in experimental and control groups in the post-test phase results from training of emotional intelligence and positive thinking components. In addition, Also according to the results obtained in Table 2, it can be concluded that the observed difference between the self-efficacy adjusted score mean in experimental and control groups is statistically significant ($P < 0.001$, $F = 22.25$).

Referring to Table 1 it can also be observed that the mean of self-efficacy post-test score is more than that of the control group. It is thus clear that the training of emotional intelligence and positive thinking components can increase the self-efficacy of athletes. This rate for self-efficacy is 0.27, meaning that 0.27 of variance explained by the self-efficacy adjusted mean in both groups, results from the training of emotional intelligence and positive thinking components at the post-test stage.

Discussion

Teaching and training of emotional intelligence and positive thinking components affects and improves mental health of athletes ($P < 0.0001$). These findings is in agreement with the results of the researches conducted by Ciarrochi & Anderson (2001), Schutte (2001), Salovey & Mayer (1990), Carson ,K.D (2000), Humborg (1992) quoted from Davari 2005, Davari 2007, and Rezvani 2005. As Rezvani (2005) showed that emotional intelligence training has an impact on improving the mental health of mothers with children suffering from cerebral palsy, and Ismaeili (2003. quoted from Davari, 2007) proved that emotional intelligence components training not only increased the emotional intelligence score of referred patients, but also it was significantly effective in enhancing their mental health (quoted from Davari, 2007).

These findings are consistent with the results of researches conducted by Ciarrochi & Anderson (2001), and this helps to generalize the results, and reveals the point that emotional intelligence is associated with stress and multi-variables of mental health that are indications of this important structure in the mental health of individuals. The researchers conducted by Austin (2005) indicate that there is a negative relationship between emotional intelligence and alcohol use, and a positive relationship between emotional intelligence and breadth and quality of social relations. Moreover, Gum (2003) points out that some people are more prone to psychoneurosis, while they avoid coping styles. The results of those studies indicate that applying emotional intelligence training on these individuals is highly effective in enhancing their compatibility.

Furthermore, the present study results showed that the emotional intelligence training components and positive thinking have been able to enhance the self-efficacy of athletes. This result is in agreement with Mazloumi Mahmoudabad (2005) finding saying health behaviors are associated with self-confidence and self-efficacy. It is also consistent with the results of studies conducted by Abusabha (1997), Basak (2005), and Holloway (2002).

Therefore, in a general conclusion we could say that the emotional intelligence components training and positive thinking were effective and influential in self-efficacy and mental health improvement among the female athletes. To sum up, training of positive thinking and emotional intelligence components relatively improves the athletes' viewpoint towards race conditions and unexpected events, and persuades them to respect the rivals, to establish friendly relations and to encourage a sense of empathy in sports fields. If athletes learn that losing is not everything, they will participate at the competitions and exercises with more confidence. As for the impact of these trainings on enhancing the mental health, it can be concluded that events that occur unexpectedly, such as changes in competitive

conditions or injuries contributing stress and anxiety, causing performance decline and creating physical complications in athletes have significantly less impact on the success of athletes in individual and team positions (Butler, 1994, translated by Davoud Najafi Tavana, 1998).

Hence, considering the results of this study and other consistent researches, we recommend the sport's authorities, instructors, and trainers to hold positive thinking and emotional intelligence training courses by sport psychologists, which would definitely lead to mental health promotion and self-efficacy of athletes to succeed at sports fields. This will be an effective step in the progress of the exercise in the country.

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